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THE OLIVE WARBLER (*DENDROICA OLIVACEA*) IN SOUTHERN ARIZONA

By F. C. WILLARD

WITH TWO PHOTOS

AMONG the pines of the open forest which covers the summits of the Huachuca Mountains several species of our rarer birds make their summer homes, and they are seldom seen or heard in other parts or lower levels of the mountains. The Olive Warbler (*Dendroica olivacea*) is perhaps the most sought after of these summit dwellers. It is also one of the rarest and most easily overlooked. They seem to arrive some time about the 10th of May, and the first few days are spent, as it were, in staking out their claims anew. The males at this time are quite pugnacious toward one another, and, tho apparently already mated, they promptly drive any wanderer of the same sex from their selected bit of forest. I believe they return each year to the same locality in which they made their home of the previous year, as I have found them in the same patch of trees year after year while other places near by, with the same apparent advantages, never seem to be chosen.

About the 20th of May nest building begins. The nest is a very handsome and compact affair. It is built by the female alone and she requires about two weeks for its construction. The male accompanies her as she flies to and fro gathering the materials. He calls and sings as they work and it is at this time it is best to locate the nest, as it is so well concealed that after it is completed the sharpest eyes cannot penetrate the clump of needles in which it is placed, and the sitting bird cannot be induced to leave her nest unless called off by the male, or when she goes to feed. The well concealed nest is the usual thing tho I have seen several that were quite conspicuous.

Short-leaf pines, long-leaf pines and firs are chosen for the nesting sites. Up to the season of 1909 I had always found them in long-leaf pines, perhaps because I always looked there for them. This season one was in a fir and the balance in short-leaf pines.

On May 24 the female was observed building the nest found in the fir tree. She was gathering rootlets at the time and seemed very particular about them, picking up and dropping several before selecting one which she thought satisfactory. This she carried into a dense growth at the tip of a branch of a large fir about one hundred yards away. The male was singing and feeding in a tree close by. After a few trips with material the female would fly into the tree where he was and let him feed her. This is the only time I have observed nest building going on and the male not following the female in her flights. This nest was apparently well along in its construction as on June 3 I collected it and a set of four fresh eggs. At this time the male was not seen or heard around the nest, nor would the female flush until I climbed the tree and shook the branch with considerable violence. As there was but a light wind blowing, I roped the branch up, and, crawling out, cut off a few of the intervening twigs so as to get the nest in view. Then I hauled up my camera and fastened it in position eight feet from the nest. During all this procedure the female was hopping around close by, and the male, responding to her calls, came to investigate, and remained near by until I collected the set.

After everything was in readiness, I crawled back to the trunk and made myself as comfortable as possible to wait Madame Olive's return to her nest. In a

surprisingly short time she became reassured enough to resume her duties of incubation. Shortly a lull in the breeze gave me the opportunity desired and a click of the shutter told me an exposure had been made. The result is shown herewith. Her alert attitude is probably due to the fact that I had cleared away so many of the concealing twigs. I later made a closer exposure of the nest and eggs, having brought them safely to the ground.

This nest is now before me and a detailed description may not be amiss. It is supported by ten small live twigs from the size of a pencil down, all growing from a branch about five eighths of an inch in diameter. It is composed outwardly of moss and pine bud hulls with plant down scattered thruout. The proportion of this latter increases until the lining is reached where it forms a felt like a humming-bird's nest. This lining is supplemented with a few very fine rootlets. The greatest outside diameter is three inches, inside, two inches; outside depth three and



Fig. 29. OLIVE WARBLER ON THE NEST

one-half inches, inside one and one-half inches.

The most interesting set taken this year was located and collected June 2. I had, on a previous occasion, heard a male singing among some pines where I had also heard him the year before. On my arrival there about ten o'clock that morning he again saluted me with his song. I began to trail him. First in one tree, then in another he hopped around. Finally, my continued presence seemed to worry him. He began to call with a peculiar whistle-like note and was shortly joined by the female. For half an hour they led me back and forth. I tried to keep her in sight all the time and was greatly assisted by her call note which differs considerably from that of the male. Finally, however, she gave me the slip, and the male, also, becoming silent, disappeared among the tree tops. Twenty minutes later I heard him again and ran toward him. I soon located him in a pine and saw that he had an insect in his bill. He was making short flights from one tree to another calling and singing as he went. Then he flew into the top of a partially

dead pine and, perching in one place, began to call the female. I heard her answer with a note like the squeak of a mouse but could not tell from what direction it was coming. After ten minutes of this he suddenly became silent and flew over several trees into a short-leaf pine whose branches were weighted down with masses of twigs and cones. I could not see where he entered but presently he flew from a clump on one of the lower branches. All excitement I climbed the tree with my rope and after some maneuvering was able to reach and investigate the clump but found no nest tho I cut off the twigs one by one to make sure. This was very tiresome work but I felt sure the nest was in that tree so descended and hid under a tree near by. Soon the female began to call again. Then the male came and fed her and I saw him go. Climbing up once more I searcht another bunch, found



Fig. 30. NEST AND EGGS OF THE OLIVE WARBLER; A CLOSER VIEW OF THE NEST SHOWN IN FIG. 29

nothing, and came down to wait again. Not to drag the tale out further, it was not until three o'clock, and a large part of the tree lay on the ground that I spied a blade of grass about three feet above me, and on pushing my hand thru the thick cluster of twigs flusht the female. The tree was not a very large one and I had shaken every branch and jarred them with my foot, but until I practically toucht the nest she had stayed on. Incubation was fresh. As this was my first set since 1899 I was much elated and forgot in a jiffy my tired muscles. After packing the eggs I cut off and lowered the entire cluster in which the nest was hidden. It must have weighed all of seventy-five pounds and formed a green ball about three and one-half feet in diameter. The nest was invisible except when the twigs were parted. The female hopt about within a few inches of my hands as I removed the eggs, uttering one of her characteristic notes very softly.

June 8 was again a lucky day for me. The evening before I had spent some two hours watching a pair but could not locate the nest, tho all their actions led me to believe that one was near by. Early in the morning I was again looking over the trees there, and soon heard and located the male. He was shortly joined by his mate. After some little time spent in feeding she flew into the top of a slender pitch pine tree. I could not see just where she was but heard the note which I have learned is uttered when she is on the nest, so climbed up and found the nest at a height of fifty feet, at the tip of one of the top branches. It contained three fresh eggs.

The eggs of *D. olivacea* are very thin-shelled and remind me very strongly of Phainopepla's in this respect as well as in color. They are shaped more like a Song Sparrow's egg and resemble the greenish type of the latter in color and markings.

MISCELLANEOUS RECORDS FROM SOUTHERN CALIFORNIA AND ARIZONA

By HARRY S. SWARTH

THE University of California Museum of Vertebrate Zoology during the past year has come into possession, by donation, of the collections of bird skins of Mr. F. O. Johnson and of Mr. W. B. Judson, of Los Angeles, California. Both of these collections are composed for the most part of beautifully prepared specimens, in excellent condition, including some rare and interesting birds. In going over them for the purpose of arranging and cataloging, the writer found various specimens, which, for one reason or another, it seemed desirable to place on record. In the case of the Johnson collection the information given herewith is derived solely from the labels attacht to the skins, but in the Judson specimens it is sometimes supplied from the writer's notes or memory, he having been with Mr. Judson when most of the birds listed below were collected. The numbers given are those of the bird collection of the Museum of Vertebrate Zoology.

JOHNSON COLLECTION

Querquedula discors. Blue-winged Teal. One specimen, adult male, "market in Los Angeles," January, 1895 (no. 12008).

Colaptes c. collaris × **Colaptes a. luteus.** Hybrid Flicker. Adult male, Riverside, California, December 31, 1888 (no. 11880). Of the size and general appearance of the Red-shafted Flicker, but with yellow wing and tail feathers. A few red feathers in the otherwise black malar stripes, and a slight indication of a red nuchal crescent.

Sphyrapicus varius nuchalis. Red-naped Sapsucker. One specimen, male, Riverside, California, December 26, 1889 (no. 11874). Just assuming the black breast of the adult plumage.

Pyrocephalus rubineus mexicanus. Vermilion Flycatcher. One specimen, male, Long Beach, Los Angeles County, California, December 26, 1894 (no. 11741). Not in fully adult plumage, the red of the lower parts and of the crown being of a pale hue and mixt with whitish or streaked feathers.

Otocoris alpestris actia. California Horned Lark. The series of this species includes one specimen (no. 11726, adult male, Riverside, California, January 2,